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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	VINCENT M. CALLAGHAN ET AL.	Docket No.:	01-104
Serial No.:	09/837,503	Examiner :	
Filed :	April 18, 2001	Art Unit :	1764
For :	FUEL CELL POWER PLANT		

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INFORMATION DISCLOSURE STATEMENT

Hon. Commissioner of Patents & Trademarks
United States Patent & Trademark Office
Washington, D.C. 20231

Dear Sir:

In accordance with the requirements of 37 CFR 1.97 and 1.98, Applicants hereby submit the documents listed hereinbelow, copies enclosed.

(1) U.S. Patent No. 3,666,682 entitled WATER-GAS SHIFT CONVERSION PROCESS, By James R. Muenger, patented May 30, 1972. This patent discloses a water-gas shift conversion process in which a feed gas mixture is subjected to successive contacts with catalyst and the temperature of the reacting gases contacting the shift conversion catalyst is controlled by indirect concurrent heat exchange with the feed gas mixture.

(2) U.S. Patent No. 3,897,200 entitled CYCLONIC MULTI-FUEL BURNER, By Herman T. Childree, patented July 29, 1975. This patent discloses an apparatus that will burn all types of liquid and gaseous fuels or combinations thereof by an improved method that results in greater efficiencies, stability and control. This simple approach in solving the present problems of burning specific fuels has resulted in a very versatile unit suitable for numerous uses and specifically applicable to burn asphaltic fuel compounds such as pitch and 10 pen Asphalt. The disclosure describes an improved heat exchanger to superheat the atomizing medium and the sonic and/or subsonic vortex of the primary atomizing zone assisted by multiple impingement points and cyclonic turbulence and low pressure within the diffuser resulting in micron size droplets of fuel that easily vaporize and greatly improve the reaction process to produce a very efficient flame with fuels ranging down to 3°API.

(3) U.S. Patent No. 4,215,083 entitled PACKING OF EQUIPMENT FOR THE PURPOSE OF CONTACTING MAINLY GASEOUS AND LIQUID MEDIUMS, By Fabry et al., patented July 29, 1980. This patent discloses the packing of a tower or column for

heat exchange, material exchange, contacting of two fluids with one another and chemical reaction consisting of a stack of elongated members having two walls inclined to one another and joined at a third wall, the first two walls are each formed with elongated vibratile elements interdigitated with vibratile elements of another packing member so that when the body of packing is traversed by one or more fluids, the vibratile elements are set into vibration.

(4) U.S. Patent No. 5,330,727 entitled APPARATUS FOR REMOVING CARBON MONOXIDE FROM GASEOUS MEDIA, By Trocciola et al., patented July 19, 1994. This patent discloses the concentration of carbon monoxide in a gaseous medium which is reduced by selective catalytic oxidation in the presence of gaseous oxygen by passing the gaseous medium through a catalyst capable of oxidizing carbon monoxide in an exothermic reaction at temperatures within a given temperature range and by controlling the temperatures encountered in the catalyst in such a manner that the exothermic reaction takes place first above a threshold temperature below which the catalyst would be rapidly inactivated at the relatively high carbon monoxide concentrations present

in the gaseous medium as it enters the catalyst, and subsequently, after the carbon monoxide concentration has been reduced to an acceptable level, at less than the threshold temperature to further reduce the carbon monoxide concentration to a desired minimum level below that achievable at temperatures above the threshold temperature.

(5) U.S. Patent No. 5,360,679 entitled HYDROCARBON FUELED SOLID POLYMER FUEL CELL ELECTRIC POWER GENERATION SYSTEM, By Buswell et al., patented November 1, 1994. This patent discloses a power plant system which produces utility grade electrical AC power from gaseous or liquid hydrocarbon fuels using a fuel cell stack employing ion exchange membranes. The fuel is desulfurized, mixed with water, heated and vaporized before being introduced into a reformer. The reformer produces a hydrogen-rich gas which is then directed through a series of heat exchangers, shift converters and a selective oxidizer. The processed fuel stream is combined in the fuel cell stack with a pressurized oxidant stream to generate DC power. Oxidant pressure is supplied by compressors driven by turbines using heated system exhaust gases. The DC power is converted

into utility grade AC power using an inverter augmented by a battery peaking unit for rapid load following. The water generated in the fuel cell stack is recycled and used to cool the fuel cell stack and to humidify the fuel stream and oxidant stream prior to their introduction to the fuel cell stack. System integration results in an electrical efficiency of at least about 40%, and with heat recovery the overall fuel efficiency is greater than approximately 80%.

The undersigned submits the above-identified references for independent consideration by the Examiner and does not make any admission that these references are or are not material to the present invention or that these references are or are not prior art with respect to the present invention.

Respectfully submitted,

VINCENT M. CALLAGHAN ET AL.

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231

on August 16, 2002
(Date of Deposit)

Rachel Piscitelli
Name and Reg. No. of Attorney

Rachel Piscitelli
Signature

August 16, 2002
Date of Signature

Date: August 16, 2002